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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO		
09/633,231	08/04/2000	Osamu Hori	195467US2SRD	1352		
	590 07/31/2003			_		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.		EXAMINER				
	1940 DUKE STREET ALEXANDRIA, VA 22314		CZEKAJ, DAVID J			
			ART UNIT	PAPER NUMBER		
			2613			

Please find below and/or attached an Office communication concerning this application or proceeding.

						(Y/	
		Application	No.		Applicant(s)	\	
,		09/633,231			HORI ET AL.		
	Office Action Summary	Examiner			Art Unit		
		Dave Czek			2613		
	The MAILING DATE of this communication a	ppears on the	cover	sheet with the co	rrespondence ad	dress	
Period fo	* -	I V IC CET TO	EVDI	DE 2 MONTH/S	e) EPOM		
THE I - Exter after - If the - If NO - Failu - Any r earne	ORTENED STATUTORY PERIOD FOR REP MAILING DATE OF THIS COMMUNICATION asions of time may be available under the provisions of 37 CFR 1 SIX (6) MONTHS from the mailing date of this communication. period for reply specified above is less than thirty (30) days, a reperiod for reply is specified above, the maximum statutory perior to reply within the set or extended period for reply will, by statuely received by the Office later than three months after the mail dipatent term adjustment. See 37 CFR 1.704(b).	I. 1.136(a). In no even eply within the statut d will apply and will tte, cause the applic	t, howev ory minin expire SI ation to I	er, may a reply be time num of thirty (30) days IX (6) MONTHS from to become ABANDONED	ely filed will be considered timel he mailing date of this co (35 U.S.C. § 133).	y. ommunication.	
Status	Responsive to communication(s) filed on						
1)[_	Responsive to communication(s) filed on This action is FINAL . 2b) \(\bigsim \)	—— · This action is r	on-fin	اد			
2a)☐	Since this application is in condition for allow				secution as to th	e merits is	
3)□	closed in accordance with the practice unde	er <i>Ex parte Qu</i>	ayle, 1	1935 C.D. 11, 4	53 O.G. 213.		
Dispositi	on of Claims						
•	Claim(s) 1-36 is/are pending in the application						
	4a) Of the above claim(s) is/are withdr	rawn from con	sidera	tion.			
5)	5) Claim(s) is/are allowed.						
6)⊠	Claim(s) <u>1-36</u> is/are rejected.						
7)	Claim(s) is/are objected to.						
•	Claim(s) are subject to restriction and	l/or election re	quiren	nent.			
• •	ion Papers						
•	The specification is objected to by the Exami				. the Eveniner		
10)⊠ The drawing(s) filed on <u>04 August 2000</u> is/are: a)⊠ accepted or b)□ objected to by the Examiner.							
	Applicant may not request that any objection to					ner	
11)	The proposed drawing correction filed on				ved by the Examin	iei.	
40	If approved, corrected drawings are required in		ice acti				
·	The oath or declaration is objected to by the I	Examilier.					
Priority under 35 U.S.C. §§ 119 and 120							
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).							
a)⊠ All b)□ Some * c)□ None of:							
	1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents have been received in Application No							
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received.							
14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).							
a) ☐ The translation of the foreign language provisional application has been received. 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.							
Attachmer	nt(s)						
2) 🔲 Noti	ce of References Cited (PTO-892) ce of Draftsperson's Patent Drawing Review (PTO-948) rmation Disclosure Statement(s) (PTO-1449) Paper No(s	s) <u>4, 6,7</u> .	5) 🔲		(PTO-413) Paper No Patent Application (P		
U.S. Patent and	Trademark Office	Action Summar	v		Part of Paper No. 8		

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 2. Claims 1-2 and 5-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Anderson et al. (5986675), (hereinafter referred to as "Anderson").

Regarding claims 1, 2, 5, 6, Anderson discloses a process for creating a 3D computer animated movie or animated sequence of images. This invention allows a user to select an actor "specifying at least one of object regions as a reference object region "(Anderson: column 6, lines 11-12, wherein the actor is considered the object) and cause the actor to move along a user-defined path anywhere in a scene and perform any of a variety of actions, such as walking, crawling, and changing costumes (Anderson: column 6, lines 18-21). These actions result in "obtaining a conversion parameter (wherein the conversion parameter is the changing costumes, walking, or crawling) representing conversion from the reference object region into an object region of a target object (wherein the target object is the final location of the actor) and describing the object region data using the conversion parameter and information on the

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reference object region." The user also moves the actor along any arbitrary path defined by the user thus "approximating a time-series variation of the conversion parameter and describing the object region data using an approximate function parameter."

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 3-4 and 7-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (5986675), (hereinafter referred to as "Anderson") in view of Erdem et al. (5982909), (hereinafter referred to as "Erdem").

Regarding claims 7-10, Anderson discloses a process for creating a 3D computer animated movie or animated sequence of images. This invention allows a user to select an actor "specifying at least one of object regions as a reference object region "(Anderson: column 6, lines 11-12, wherein the actor is considered the object) and cause the actor to move along a user-defined path anywhere in a scene and perform any of a variety of actions, such as walking, crawling, and changing costumes (Anderson: column 6, lines 18-21). These actions result in "obtaining a conversion parameter (wherein the conversion parameter is the changing costumes, walking, or crawling) representing conversion from the reference object region into an object region of a target

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object (wherein the target object is the final location of the actor) and describing the object region data using the conversion parameter and information on the reference object region." The user also moves the actor along any arbitrary path defined by the user thus "approximating a time-series variation of the conversion parameter and describing the object region data using an approximate function parameter." However, this process lacks the error minimization as claimed. Erdem teaches that the optimum locations for nodes inside an object are found using a logarithmic method that reduces the computational load, especially when sub-pixel accuracy is applied (Erdem: column 12, lines 6-8). Erdem further discloses a step that minimizes prediction error (Erdem: column 12, lines 31-37, and figure 13). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to take the process disclosed by Anderson and add the error minimization step taught by Erdem in order to obtain an object-region-data apparatus that keeps errors at a minimum level and produces an accurate picture.

Regarding claims 3-4, Anderson discloses that after selecting the actor and scene, the user begins to record a movie that consists of a computer-animated sequence of images (Anderson: column 11, lines 1-3). Although not stated, these images could consist of bit-map information (Official Notice) because they are popular image formats.

Regarding claims 11-14, Anderson discloses a series of frames that make up a running sequence (Anderson: figure 13). The "reference object region" is

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located in the center, with frames preceding and following the "reference object region".

Regarding claims 15-18, note Erdem, figures 2A and 2B. If the threshold was exceeded in item 26a, the "reference object region is updated" via items 30b, 40b, and 50b.

Regarding claims 19-22, note Erdem, figures 2A and 2B. If the threshold was exceeded, the "conversion parameters are recursively obtained" via the arrow between items 28a and 26a.

Regarding claims 23-26, note Anderson, figure 14. The "object region is divided into a plurality of subregions" or cells from which "conversion parameters are obtained".

Regarding claims 27-30 and 33, note Anderson, figure 20. This diagram illustrates or describes "related information related to the object region of said target object".

Regarding claim 31, note Anderson, figure 1. The RAM (item 17) has a plurality of "data regions" (items 37a-37n) for storing a variety of information.

Regarding claims 32 and 34-36, although not shown, a processor could have been configured to set a reference object, obtain a conversion factor, describe the object region data, approximate a time series variation of the conversion parameter, and inversely convert a specified predetermined position into a position in a frame (Official Notice). Doing so would have been obvious to

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make the data acquisitions listed above more efficient. Also, see figure 14b of Erdem, which shows the selection inside for an object.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

US-5883673	03-16-99	Miyamoto, Yoshihiro
US-5966469	10-12-99	Moon et al.
US-6373492	04-16-02	Kroitor, Roman B.
US-6414685	07-02-02	Takakura et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dave Czekaj whose telephone number is (703) 305-3418. The examiner can normally be reached on Monday - Friday 9 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Kelley can be reached on (703) 305-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872 9314 for regular communications and (703) 872 9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

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July 11, 2003

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SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600